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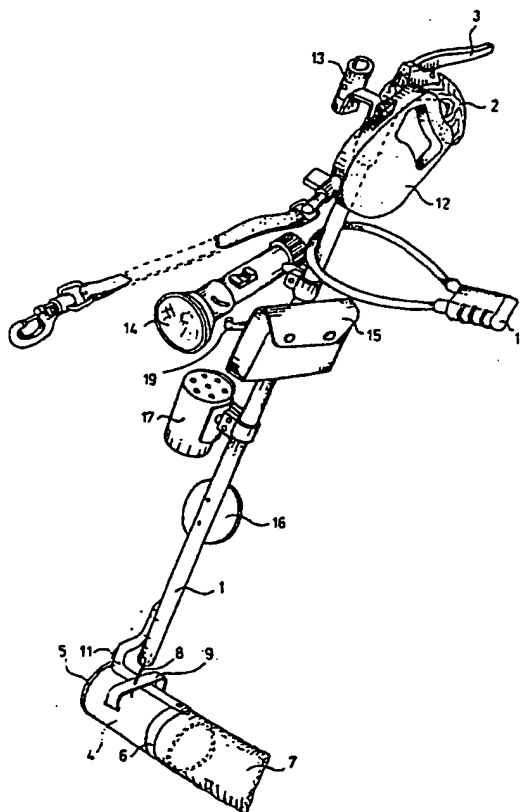
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(21) International Application Number: PCT/HU92/00061 (22) International Filing Date: 23 December 1992 (23.12.92) (30) Priority data: 4106/91 23 December 1991 (23.12.91) HU (71)(72) Applicant and Inventor: HORVÁTH, Endre [HU/HU]; Arthur u. 4, H-1191 Budapest (HU). (74) Agent: DANUBIA; Bajcsy Zsilinszky u.16, H-1368 Bu- dapest (HU). (81) Designated States: AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, PL, RO, RU, SD, SE, UA, US, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).		Published <i>With international search report.</i>
(54) Title: MULTIPURPOSE DEVICE FOR PICKING UP DROPPINGS MAINLY IN PUBLIC PLACES AS WELL AS FOR THROWING THEM INTO CONTAINERS		
(57) Abstract The invention relates to multipurpose device for picking up droppings mainly in public places as well as throwing them into containers, consisting of a rod with the height of walking stick, on its lower end an openable pickup container is arranged being in movable connection with the operating lever arranged on the handle of the rod. In the sense of the invention the lower end of the rod (1) a grab jaw (4) is joined, its one end joins to the lid (5), while its other end connects advantageously to the cylindrical support ring (6) onto which a bag is pulled.		



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Multipurpose device for picking up droppings mainly in public places as well as for throwing them into containers

Field of the Invention

- 5 The invention relates to a multipurpose device for picking up droppings mainly in public places as well as throwing them into containers, consisting of a rod with the height of walking stick, on its lower end an openable pickup container is arranged which is in movable connection with the operating lever arranged on the handle of the rod.
- 10 It is well-known that in the human life the contact with the nature is of great importance including the environmental cleanliness as well as its protection. Consequently, a lot of people keep animals - preferably dog or cat - in the flat or around the house. In the town, owing to the built-in spaces they are kept mainly in the flat. As a consequence, they have to go with the dog-owner to the open to arrange
- 15 their natural needs - resp. needs of motion, metabolism, etc. This occasion results the fact that in the streets, in the public places, due to the metabolism, the droppings are left behind causing environmental pollution, moreover, in the case of stepping in, it is unavoidably carried away, polluting the wearing belongings, and can cause contaminations.
- 20 For the sake of environmental sanitation, the removing mentioned dirt and throwing them into containers are necessary in any case. As a matter of fact, generally, the animal keepers are bound by order to clean the dirt caused by their animals.

Prior Art

- 25 Numerous solutions are known in connection with removing the droppings left behind by the animals on the public domain. It is known, for example, a unit pack, wherein a plastic carrying bag can be found containing a small dust-pen together with a small broom. It is used in the following way: firstly the small dust-pen and the small broom are taken out of the plastic bag than with the usual sweeping movements the dirties are collected, after that follows the looking for a public litter container to throw
- 30 the content of the small dust-pen. Finally the used devices will be put back into the plastic bag. This solution has numerous disadvantages: i.e. both hands have to be used for handling the small broom of short broomstick and the small dust-pen, and in addition to this, the animal keeper has to squat or hard to lean forward in order to be able to carry out the above mentioned action. At the same time however, the carrying

bag cannot be kept safely in hand, and due to the motion of the dog, the balance can be lost. It can be made more difficult by rainy or wintry weather, when the clothes can also be polluted due to the squatting position, owing to the length of the clothes. If, in spite of these, the dog-owner could manage to sweep the dirt into the dust-pen, 5 in this case, he holds the carrying bag, the dog, as well as the dust-pen with its content in his hands and now, can start the looking for a litter container of public domain to be able to throw the content of the dust-pen therein. Furthermore, it has the drawback that the carrying bag becomes dirty by the contaminated devices put back again. Due to the above-mentioned disadvantages, the dog-owners cannot be obliged to use the 10 mentioned solution even on the contrary to a prospective penalty written in the relative orders.

Similar, however a little bit convenient solution can be known from the CH-PS 604 485. The devices essentially are the same as the previously mentioned solution, however, in this case instead of the broom a plate can be found, and instead of the 15 dust-pen a bag fixed on the rigid frame is used. The convenience comes from the fact that the bag having a rigid frame is fixed onto a handle can be bent down from the walking stick-like rod, and simultaneously the plate also has a long handle, as a consequence, during pushing the dropping into the bag, the user has neither to lean forward nor squat, and as a matter of fact he is free from the previously mentioned 20 consequences. It is advantageous furthermore on the one hand that by turning up the bag the user is able to walk on as it is not necessary to find immediately a litter container, and on the other hand, after the use, the plate can be also fixed onto the rod. It is disadvantageous however, that it can be used exclusively in the case of solid droppings, and the bag cannot be removed simply from the frame.

25 The device described in the US-PS 3.868.135 seems to be a better solution, which is provided with a dust-pen-like container fixed onto the rod of a walking stick length, and the container has a lid which can be opened and closed as well. The opening and the closing are taken place by the aid of a flexible wire by means of an operating lever arranged on the handle of the rod. The gathering up the droppings is taken place so 30 that firstly the lid is open after that it will be pushed under the droppings, then by means of the operating lever arranged at the handle it will be closed. In the container - before using - an openable insert bag - is arranged, as a consequence it can be simply emptied and does not become dirty. By this means, the container can be emptied hygienically. The insert bag has a self-adhesive lid, whereby it can be safely closed. 35 Though the solution has advantageous features, it has numerous disadvantages as

well. Namely, by means of the openable lid, the droppings can be picked up only with a skilled motion, as no kind of device can be found for pushing them into the dust-pen. It is also a drawback that in the case of its inadequate consistency, it is not at all suitable for gathering up. Furthermore, it is not needed for both hands to open the container, i.e. one hand is enough to keep the rod, while the other has to move the operating lever. Furthermore, it is also disadvantageous that the insert bag can be used only once, i.e. during the walking a litter container has to be looking for.

Summary of the Invention

The aim of the above mentioned invention is to realize a multipurpose device suitable for practical purposes and comfort requirements, as well as to eliminate the above mentioned disadvantageous features, and also suitable in public or different places for gathering up the droppings in any of the seasons, in any part of the days, as well as under any weather conditions, furthermore, suitable for transit storing, and last but not least for throwing them into the litter container without touching. The aim of the invention furthermore is in, that during walking animals - dog, cat, etc. - the multipurpose device according to the invention, besides the main task, should hold other devices used in various weather conditions as well as in parts of the day, furthermore, it should be able to serve other secondary activities.

Our invention is based on the recognition that instead of using dust-pen, operated by the aid of both hands, a grab mechanism is utilized, for its use one hand is enough. It was recognized furthermore, that the multipurpose device can be used several times, if the gathering of the picked up droppings as well as of its storing are taken place outside of the grab mechanism, advantageously by the aid of a changeable bag. It was also recognized that the problems in connection with the picking up the droppings of inadequate consistency can be solved so that some powdery material, advantageously sand, shavings, or other materials are sprinkled to the dirt i.e. the multipurpose device according to the invention contains the fittings suitable for storing the sprinkling material enough for the dog-walking, as well as fitting for simply getting out the powdery material to the requested places.

The aimed task has been solved by a multipurpose device for picking up droppings mainly in public places as well as throwing them into containers, consisting of a rod with the height of walking stick, on its lower end an openable pickup container is arranged being in movable connection with the operating lever arranged on the handle

of the rod. The multipurpose device according to the invention is developed so that to the lower end of the rod a grab jaw is joined, its one end joins to the lid, while its other end connects advantageously to the cylindrical support ring onto which a bag is pulled.

- 5 According to a preferred embodiment of the multipurpose device, the rod is of hollow, round, square, oblong or oval formation made of plastic, aluminium or copper with plain or surface treatment execution containing some kind of power transmission device.

- 10 In another preferred embodiment, the power transmission device can be Bowden cable or fishing line or fixed shaft or some hydraulic or pneumatic system.

It is also a preferred embodiment, in which the grab jaw consists of two elements symmetrical to each other forming cylindrical body in closed state made of metal or plastic material.

- 15 According to a further characteristics of the invention, the grab jaw is of single die cast, and of post-slotted execution.

In a further preferred embodiment, the bag is of decomposed in the surrounding with known formation having self closing mouthpart.

It is also a preferred embodiment, in which to the handle fixed or automatic leash is connected.

- 20 It is advantageous furthermore, if the hole of the rod comprises a shaft for an umbrella holder which can be pulled out, on its end a clamp is arranged.

In a special further development, on the rod a torch is arranged turnable in several direction.

- 25 According to a further characteristic of the invention, on the rod a pannier, in a given case, reflective prism or in a given case, a hanger are fixed.

It is also a preferred embodiment, in which onto the rod a tilting strewing bottle is arranged.

It is also advantageous if on the lower part of the rod two, expediently on one axle, lowerable wheels are arranged.

Brief Description of the Drawings

The invention is described in detail by the aid of the enclosed drawings by way of Examples.

In the drawings

- | | | |
|-----|--------|--------------------------------------------------------------------------------------------------------------|
| 5 | Fig 1 | shows a possible embodiment of the device according to invention in schematical and axonometrical formation, |
| the | | |
| | Fig. 2 | represents the side view of a detail of the device according to the invention shown in Fig. 1, |
| | Fig. 3 | is the section along III-III shown in Fig. 2, furthermore, |
| 10 | Fig.4 | shows another possible embodiment of the invention in section, while |
| | Fig. 5 | represents the detail of the embodiment shown in Fig. 4, in the open position of the grab jaw. |

Description of the Preferred Embodiments

- 15 Fig. 1 shows a possible embodiment of the device according to the invention in schematic and axonometric view. On the top of the rod 1 the handle 2 is formed. The rod 1 is of hollow formation wherein the Bowden cable 8 is arranged. The Bowden cable 8 is joined above to the operating lever 3 arranged on the handle 2, while its bottom end connects to the mid part of the opening lever 9. Each of the outer ends of the opening lever 9 are fixed to the grab jaws 4. As the grab jaws 4 are closed, they have cylindrical formation. One end of this cylindrical body connects to the lid 5, while its other end joins to the cylindrical support ring having the same diameter. Onto the support ring 6 a bag 7 is pulled. The bag 7 is made of in the surrounding decomposed material having self closing mouthpart.
- 20
- 25 In this embodiment the multipurpose device according to the invention is formed so that to the handle 2 an automatic leash 12 is connected. In the hollow of the rod 1 - not shown in Fig. 1 - a shaft for an umbrella holder can be pulled out is arranged, on its end a clamp 13 is arranged for chucking the handle of the umbrella. On the rod 1 various devices are arranged for other purposes. On the rod, also can be found a torch

14 turnable in several directions. On the rod 1 further expedient devices, i.e. a pannier 15 made of skin or other material, and a reflective prism 16 are arranged. The ends of the holder for assembling the pannier 15 hangers 19 are arranged with hook formation. Onto the rod 1 the turnable strewing bottle 17 is arranged. Fixing onto the
5 rod 1 can be find a lock 18 as well.

Fig. 2 represents the side view of the detail of the device shown in Fig. 1, while in Fig. 3 can be seen the cross-section in III-III direction according to the Fig. 2. In the rod 1 with hollow formation a Bowden cable 8 is arranged, which joins with its bottom end to the mid part of the opening lever 9. Each of the outer ends of the
10 opening lever 9 are fixed to the grab jaws 4, which are closed, and have cylindrical formation. The grab jaws 4 by means of clamps, like hinge, are fixed to the holder 11, the upper part of which is fastened to the rod 1. One end of the grab jaws connects to the lid 5, while its other end joins to the cylindrical support ring 6. Onto the support ring 6 a bag 7 is pulled, having self closing mouthpart. In Fig. 2 the open position of
15 the grab jaws 4 can be seen as well.

The possible embodiments of the multipurpose device according to the invention will be described in the followings without drawings. According to a simple solution, the grab jaws 4 and their operating mechanisms are assembled to a walking stick. In this case, the Bowden cable 8 starting from the operating lever 3 is guided outside parallel
20 with the rod 1 to the opening lever 9.

The hollow of the rod 1 can be of round, square, oblong or oval formation, made of plastic, aluminium or copper with plain or engraved or anode oxidation execution. The handle 2 is made of wood, metal or plastic.

The grab jaw 4 can be made of metal or plastic, with the solution of devided or single die cast, and of post-slotted execution. The support ring 6 can be made of metal or
25 plastic as well. The operating mechanism of the grab jaws 4 besides the operating lever 3 can be door-handle, knob, etc. operating to the effect of pulling or pressing force by the aid of Bowden cable 8 according to the described example, besides the Bowden cable 8, can be used fishing line or fixed shaft, perhaps some hydraulic or
30 pneumatic system known in itself. The close up of the grab jaws 4 is taken place by laminated spring or pressure- and tension springs affected to the operating lever, or in the case of the grab jaws 4 of single die cast, post-slotted execution the close up is ensured by the flexible plastic or the springs arranged in it.

The enclosed Fig. 4 represents in section the above mentioned embodiment with fixed shaft. In the hole of the handle 2 the shaft 20 is fixed by means of screw. The shaft 20 runs along in the hollow rod 1. To the lower end of the shaft 20 the connecting plate 21 joins rigid by means of screw fixation. The opening levers 9 are connected in turnable way to the connecting plate 21 by means of pins 22. The ends of the opening levers 9 are fixed to the grab jaws 4. Each of the opening levers 9 is provided with slots 23. The lower end of the lever 24 is arranged in the slots 23, while its upper end is fixed stable to the rod 1. Between the lower end of the rod 1 and the connecting plate 21 can be found the compression spring 25.

Fig. 5 represents the embodiment according to the invention shown in Fig. 4, where the grab jaws 4 are in open position.

The bag 7 can be made of plastic, aluminium foil, or some kind of other foils, as well as in textile material. The self closing is solved advantageously so that in the folded back and fixed - folded, cemented, sewn, etc. - mouth-part of the bag 7, a flexible metal, wooden or plastic plate having plain formation - after stopping pretension - is arranged.

In a further embodiment of the multipurpose device according to the invention onto the lower part of the rod 1 two, expediently on one axle, in case of need, lowerable wheels are arranged.

The operation of the device according to the invention is as follows:

Firstly the grab jaws 4 are opened by means of the operating lever 3 being at the handle 2, then the device will be put above the droppings to be picked up, after that releasing the operating lever 3, the grab jaws 4 grabbing up the dirt, close. Then the dirt closed into the cylindrical body formed by the grab jaws 4, get to the bag 7 pulled onto the support ring 6 so that the multipurpose device will be a little bit lifted up from the ground, and tilted in the direction of the bag 7. Afterwards our device can be used several times without dropping back the picked up droppings or without using the litter container. After the walking, the self closing bag is splintered off the support ring 6 over the litter container. In the case of insubstantial consistency or in rainy weather, before operating the device, the the head of the strewing bottle 17 arranged on the rod 1 is turned forward to the ground, and the sprinkling materials fall to the dirt. After that the dirt can be picked up easily.

In case of rainy weather an umbrella can be also fixed by means of clamp 13. Thus, the other hand is not needed for protecting against the rain, it remains free for some kind of activities, such as opening the door, buying newspaper, or putting it into the pocket etc. The adjustable torch 14 can be used in the dark as to orientation in walking as to picking up the droppings, ensuring better visibilities as a consequence the whole walking will become comfortable and safety from the point of view of prevention of accidents. Similarly, for the sake of preventing accidents it is advantageous furthermore, to apply a reflective prism, enabling the user to cross the road as well as to go along the road safely.

10 It is also comfortably that the device according the invention is provided with a pannier 15 containing the paper handkerchief and perhaps the pocket radio or all the necessary belongings. The hanger 19 can be used for hanging the marketing net or nets, as well as clothes, or some kind of belongings too. The lock 18 provided with flexible chain or wire rope enables us to have the dog tied up or to bid the
15 multipurpose device to barrier, column, etc. in front of the shop or in the park, or any kind of spaces. Similarly the comfort is ensured by the two wheels, which according to need, can be lowered, and by hanging heavy packings; our multipurpose device becomes "carrier-bag".

It is advantageous furthermore that the fixed or automatic leash enables us to walk
20 with the dog as if a walking stick was used. The automatic leash is arranged so that it can be handled by the fingers without dropping while holding the handle 2. It has a special advantage furthermore that in case of very strong dogs, or hauling dogs, the multipurpose device according to the invention can be supported on the ground in order to prevent the pulling away as a consequence the fall, in case of weak old men,
25 or children, as the load will be transferred.

In addition to the advantages described above in details, the essence of the multipurpose device according to the invention is in that it solves considerable problems in view of protecting the surroundings considering the previous known solutions. Its essence is in that only the one hand keeping the leash is needed; the
30 multipurpose device can be used several times after each other; it is not necessary to empty the bag after each use; and last but not least the device according to the invention serves maximally the comfort required by the people walking with dog.

Claims

1. Multipurpose device for picking up droppings mainly in public places as well as throwing them into containers, consisting of a rod with the height of walking stick, on its lower end an openable pickup container is arranged being in movable connection with the operating lever arranged on the handle of the rod, *characterized in* that to the lower end of the rod (1) a grab jaw (4) is joined, its one end joins to the lid (5), while its other end connects advantageously to the cylindrical support ring (6) onto which a bag is pulled.
2. Multipurpose device according to the Claim 1, *characterized in* that the rod is of hollow, round, square, oblong or oval formation made of plastic, aluminium or copper with plain or surface treatment execution containing some kind of power transmission device.
3. Multipurpose device according to the Claims 1 or 2, *characterized in* that the power transmission device can be Bowden cable (8) or fishing line or fixed shaft (20) or some hydraulic or pneumatic system.
4. Multipurpose device according to any of the Claims 1 to 3, *characterized in* that the grab jaw (4) consists of two elements symmetrical to each other forming in closed state cylindrical body made of metal or plastic material.
5. Multipurpose device according to any of the Claims 1 to 4, *characterized in* that the grab jaw (4) is of single die cast, and of post-slotted execution.
6. Multipurpose device according to any of the Claims 1 to 5, *characterized in* that the bag (7) is of decomposed in the surrounding with known formation having self closing mouthpart.
7. Multipurpose device according to any of the Claims 1 to 6, *characterized in* that to the handle (2) fixed or automatic leash (12) is connected.
8. Multipurpose device according to any of the Claims 1 to 7, *characterized in* that the hole of the rod (1) comprises a shaft for an umbrella holder which can be pulled out, on its end a clamp (13) is arranged.

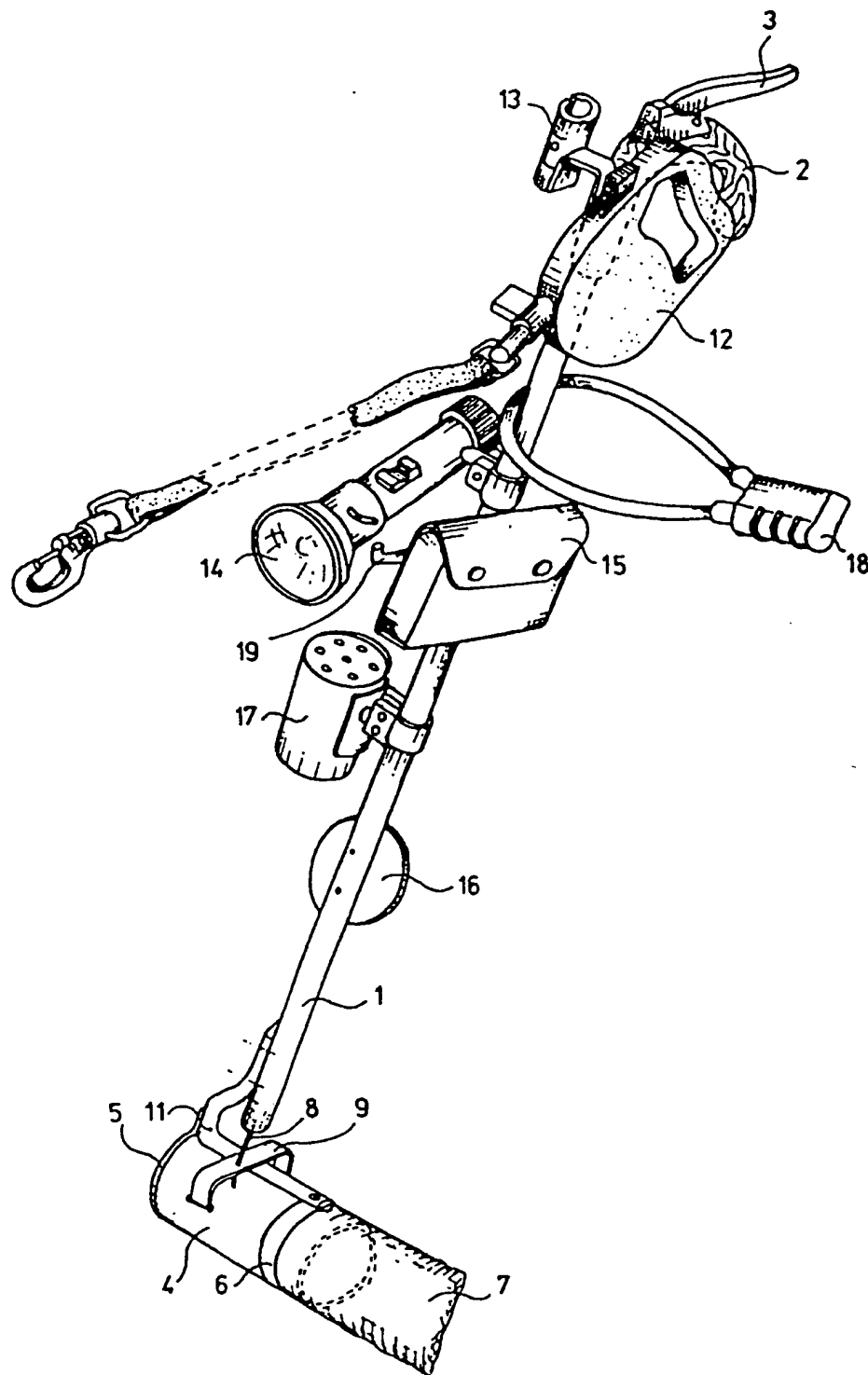
9. Multipurpose device according to any of the Claims 1 to 8, *characterized in* that on the rod (1) a torch (14) is arranged turnable in several direction.

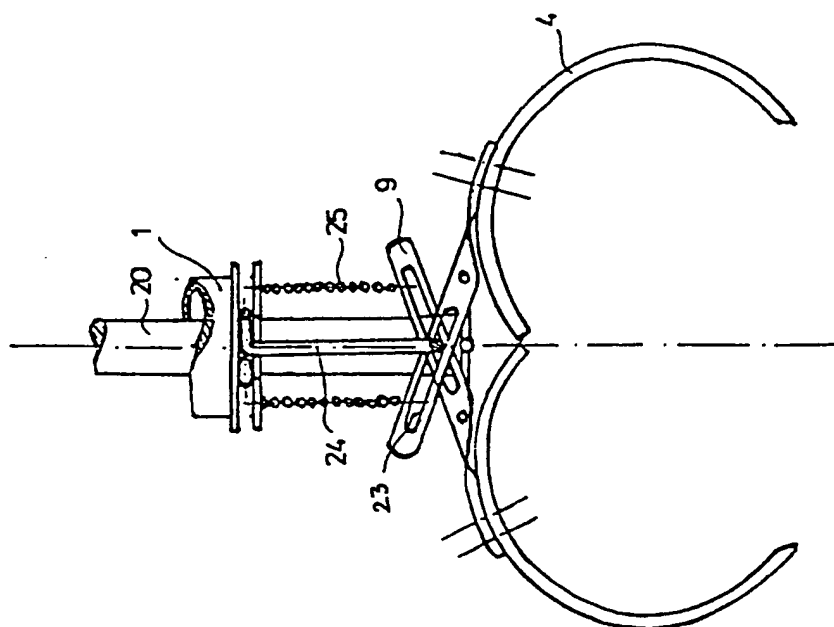
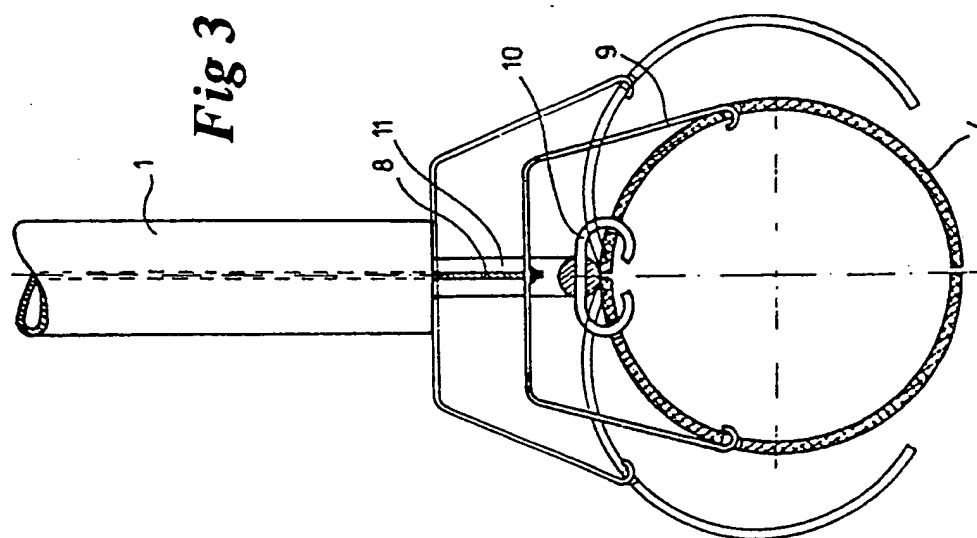
10. Multipurpose device according to any of the Claims 1 to 9, *characterized in* that on the rod (1) a pannier (15), in a given case, reflective prism (16) or in a given case,
5 a hanger (19) are fixed.

11. Multipurpose device according to any of the Claims 1 to 10, *characterized in* that onto the rod (1) a tilting strewing bottle (17) is arranged.

12. Multipurpose device according to any of the Claims 1 to 11, *characterized in* that on the lower part of the rod (1) two, expediently on one axle, lowerable wheels are
10 arranged.

1 / 4

*Fig 1*



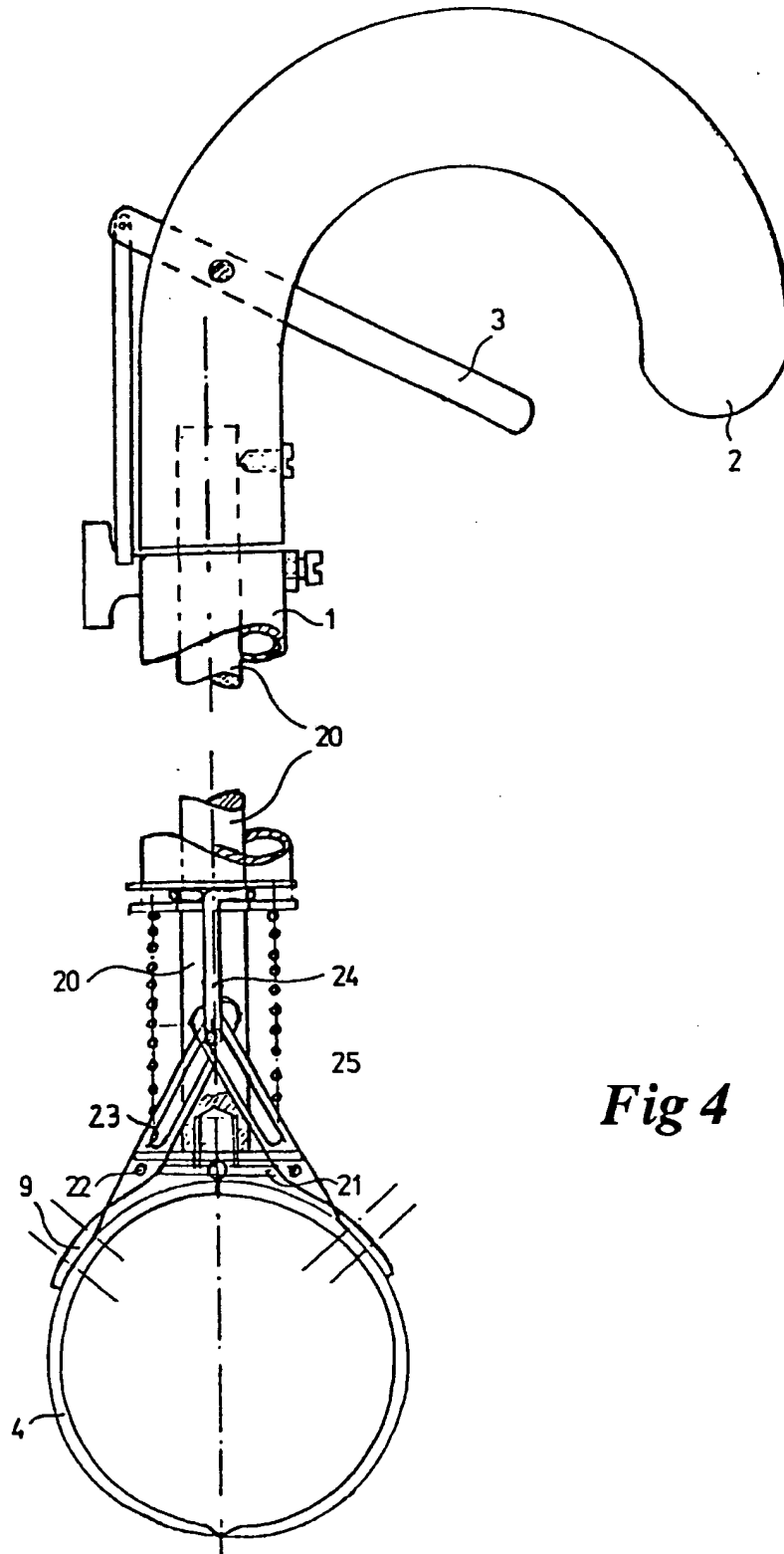


Fig 4

INTERNATIONAL SEARCH REPORT

International application No.

PCT/HU 92/00061

A. CLASSIFICATION OF SUBJECT MATTER

IPC⁵: E 01 H 1/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC⁵: E 01 H 1/00, 1/12; A 01 K 23/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	GB, A, 2 095 156 (STIRRUP, SMITH) 29 September 1982 (29.09.82), claim 1; fig.	1-4, 6, 7
Y	DE, A, 3 933 341 (PLASTICA FOLIEN-ERZEUGNISSE GMBH) 11 April 1991 (11.04.91), fig. 1, 2.	1-4, 6, 7
A	DE, A, 3 412 399 (SCHÄFER, BECKERS) 18 October 1984 (18.10.84), abstract; fig.	1, 3, 4
A	US, A, 4 248 468 (HASTINGS) 03 February 1981 (03.02.81), fig. 1-3.	1, 3

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Date of the actual completion of the international search

25 March 1993 (25.03.93)

Date of mailing of the international search report

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GB A 2095156		GB A1 2095156	29-09-82
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